# State of Alaska FY2010 Governor's Operating Budget

Department of Public Safety
Fire and Life Safety
Results Delivery Unit Budget Summary

# Fire and Life Safety Results Delivery Unit

# **Contribution to Department's Mission**

Prevent the loss of life and property from fire and explosion.

#### **Core Services**

- Public fire safety and prevention education.
- Building plan review of commercial buildings, 4-plex and above.
- Building and fire code management (development, adoption, interpretation, and review).
- Fire and life safety inspections of priority occupancies.
- · Fire service training.
- Fire investigations of major fire incidents involving high dollar loss, fatality, or major community impact.

End Result	Strategies to Achieve End Result
A: Reduce loss of life due to fire.	A1: Public education programs.
Target #1: Reduce unintentional fire fatalities (non-homicide) by 5% compared to the previous 5-year average  Status #1: Unintentional fire fatalities (non-homicide) increased to 24 in CY2007 compared to the previous 5-year average of 12.2	Target #1: Reduce fire fatalities in high-risk groups by 10% compared to the previous 5-year average Status #1: Fire fatalities in high-risk groups rose to 10 in CY2007 compared to the 5-year average of 2.6 fatalities  Target #2: Reduce fires in high-loss regions by 10% compared to the previous 5-year average Status #2: Fires in high-loss regions decreased by 2% in CY2007 compared to the 5-year average of 863 fires  A2: Fire and life safety inspections.  Target #1: 30% of all buildings scheduled for priority fire and life safety building inspections to be found in compliance at time of inspection  Status #1: 35.58% of 1,543 buildings inspected in FY2007 were found to be in compliance with legal standards, exceeding the target of 30%
End Result	Strategies to Achieve End Result
B: Reduce property loss due to fire.	B1: Building plan review for code compliance.
Target #1: Reduce property loss by 5% compared to previous 5-year average Status #1: The dollar value of property loss due to fire increased 136% compared to the previous 5-year average. The significant increase was due to high value major fire events.	Target #1: Complete yearly 95% of submitted building plan reviews  Status #1: 70% of 1,024 submitted plan reviews were completed in FY2008  B2: Public education programs.
	Target #1: Reduce property loss in high loss occupancies-residential structures by 10% compared to previous 3-year average

#### Results Delivery Unit — Fire and Life Safety

<b>_</b>	
	Status #1: Significant fire events contributed to an increase of 96% in property loss in CY2007, up to \$57 million compared to the previous 3-year average of \$29 million
	B3: Fire training.
	Target #1: 10% increase in number of students attending firefighter and fire officer training  Status #1: 19% increase in the number of students attending firefighter and fire officer training in FY2008, from 2,500 to 2,972
End Result	Strategies to Achieve End Result
C: Reduce number of fires.	C1: Fire training.
Target #1: Reduce number of structure fires by 5% compared to the previous 3-year average Status #1: The number of structure fires decreased by 4% to 1,203 in CY2007 compared to the previous 3-year average of 1,252	Target #1: 10% increase in the number of fire prevention education courses delivered to firefighters Status #1: Fire prevention education courses increased by 4% in FY2008, from 291 to 302  Target #2: 10% increase in number of firefighters
	attending building safety inspection training  Status #2: 11% decrease in the number of firefighters attending building safety inspection training in FY2008, from 303 to 272

### **Major Activities to Advance Strategies**

- Coordinate company inspection classes for local fire departments.
- Start new public fire education programs in willing communities.
- Work with local fire departments to improve existing public fire education programs.
- Coordinate delivery of public fire education programs to owners and occupants of high loss occupancies.
- Coordinate delivery of public fire education programs to residents of high loss regions.
- Initial fire and life safety inspections, inspection follow-ups. Fire system reports review and followup.

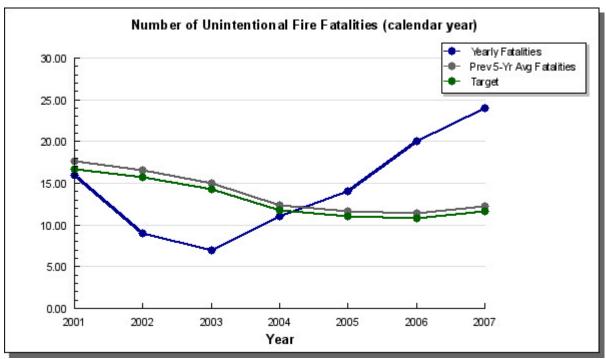
- · Code review and adoption.
- Advanced search and rescue training. Thermal imaging training.
- Coordinate advanced fire suppression classes for local fire departments.
- Coordinate public fire education classes for local fire departments.
- Coordinate company inspection classes for local fire departments.

FY2010 Resources Allocated to Achieve Results		
FY2010 Results Delivery Unit Budget: \$5,807,900	Personnel: Full time	29
	Part time	0
	Total	29

#### **Performance**

#### A: Result - Reduce loss of life due to fire.

**Target #1:** Reduce unintentional fire fatalities (non-homicide) by 5% compared to the previous 5-year average **Status #1:** Unintentional fire fatalities (non-homicide) increased to 24 in CY2007 compared to the previous 5-year average of 12.2



Methodology: CY2007 no longer uses rounded numbers. Source: Division of Fire and Life Safety

Number of Unintentional Fire Fatalities (calendar year)

Year	Yearly Fatalities		Percent Inc/Dec
		Fatalities	
2007	24	12.2	+96.7%
2006	20	11.4	+81.8%
2005	14	11.6	+20.7%
2004	11	12.4	-11.3%
2003	7	15	-53.3%
2002	9	16.6	-45.8%
2001	16	17.6	-9.1%

Analysis of results and challenges: Senate Bill 84, which requires that only cigarettes that have been certified as "Reduced Ignition Propensity" (self-extinguishing) may be sold in Alaska after August 2008, was signed into law in 2007. The division anticipates that this law will help to significantly reduce the number of fire fatalities in Alaska. However, unsold retail stocks are still in the marketplace and will take six months or so to be depleted.

Thirteen of the 24 CY2007 fatalities occurred in single-family residences either without smoke detectors or in which the detectors had been disabled.

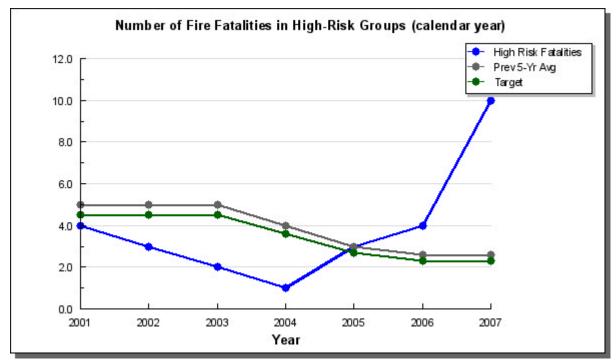
Alcohol and drug usage continues to be a contributing factor in fire fatalities. It is alarming to note that in 50% (12 of the 24) of the fire fatalities in CY2007, it is known that alcohol or drugs were a contributing factor to the fire or the victim's inability to escape. (However, this is a 31% improvement over CY2006.) The division is currently researching methods to further address this issue and continue to drive down this contributing factor.

Alaska continues to rank above the national average in per capita fire fatalities. Juvenile fire setters are a major concern; 20% of fire deaths were caused by juvenile fire setters and many more fires set by them caused significant property damage. The division is targeting this area of concern for intensive media and public education campaigns. The division continues to implement public responsibility campaigns to educate the public on their responsibility to prevent fire and keep their families safe.

Note: There were two fire fatalities in CY2007 caused by airplane mishaps, and one by automobile.

#### A1: Strategy - Public education programs.

**Target #1:** Reduce fire fatalities in high-risk groups by 10% compared to the previous 5-year average **Status #1:** Fire fatalities in high-risk groups rose to 10 in CY2007 compared to the 5-year average of 2.6 fatalities



Methodology: CY2007 no longer uses rounded numbers. Source: Division of Fire and Life Safety

Number of Fire Fatalities in High-Risk Groups (calendar year)

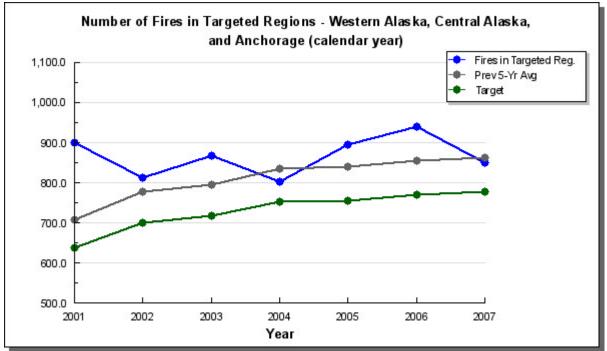
Year	High Risk Fatalities	Prev 5-Yr Avg	Percent Inc/Dec
2007	10	2.6	+285
2006	4	2.6	+54%
2005	3	3	0%
2004	1	4	-75%
2003	2	5	-60%
2002	3	5	-40%
2001	4	5	-20%

**Analysis of results and challenges:** Nationally, children and the elderly have been identified to be at higher risk for fire related fatalities. The Division of Fire and Life Safety has determined Alaska's high-risk groups to be children under 10 years and adults over 65 years of age.

During CY2007, seven children and three Alaskans over 65 died as the result of eight unintentional fires. Single-family residences is the occupancy type where most of the fatalities occur, yet the division has very limited code authority and little direct access. In one fire, the cause was attributed to use of alcohol by an adult that resulted in four youth fatalities, two of whom were in the high-risk group.

The use of alcohol by Alaskans over the age of 65 continues to contribute to loss of life among that section of the high-risk group. The division continues to research methods to educate this audience and their families on the increased dangers of alcohol and drug use around heat sources. The implementation of the use of the "Reduced Ignition Propensity" (self-extinguishing) cigarettes will also be a factor in reducing these fatalities.

**Target #2:** Reduce fires in high-loss regions by 10% compared to the previous 5-year average **Status #2:** Fires in high-loss regions decreased by 2% in CY2007 compared to the 5-year average of 863 fires



Methodology: CY2007 no longer uses rounded numbers. Source: Division of Fire and Life Safety

Number of Fires in Targeted Regions - Western Alaska, Central Alaska, and Anchorage (calendar year)

Year	Fires in Targeted Reg.	Prev 5-Yr Avg	Percent Inc/Dec
2007	850	863	-2%
2006	939	855.4	+10%
2005	894	840	+6%
2004	802	835.8	-4%
2003	867	796	+9%
2002	813	778	+4%
2001	901	708	+27%

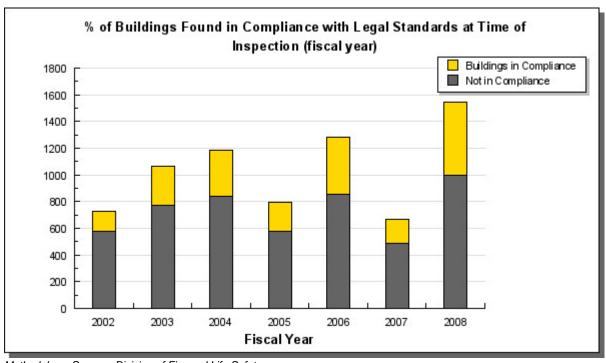
**Analysis of results and challenges:** The number of fire departments (and corresponding incidents reported) increased in CY2006 and CY2007. This is attributable to registration of new fire departments as a result of project "Code Red" and Federal Emergency Management Agency (FEMA) grant recipient requirements.

The Division of Fire and Life Safety is working to reduce fires in target regions. Target regions are those areas of the state that experience a proportionately higher number of fires. Fire incident reports indicate the greatest number of fires occur in western Alaska, central Alaska, and Anchorage. These areas are targeted for increased educational and inspection efforts to reduce fires.

#### A2: Strategy - Fire and life safety inspections.

**Target #1:** 30% of all buildings scheduled for priority fire and life safety building inspections to be found in compliance at time of inspection

**Status #1:** 35.58% of 1,543 buildings inspected in FY2007 were found to be in compliance with legal standards, exceeding the target of 30%



Methodology: Source: Division of Fire and Life Safety

% of Buildings Found in Compliance with Legal Standards at Time of Inspection (fiscal year)

Fiscal Year	Total Inspections	Buildings in Compliance	YTD Percentage
FY 2008	1,543	549	35.58%
FY 2007	669	180	27.0%
FY 2006	1,282	429	33.0%
FY 2005	795	214	27.0%
FY 2004	1,187	344	29.0%
FY 2003	1,063	291	27.4%
FY 2002	729	155	21.3%

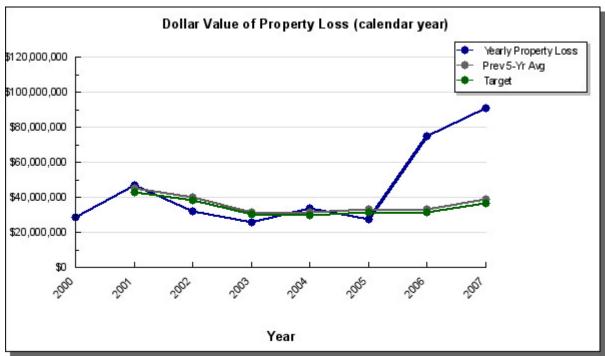
Analysis of results and challenges: Prioritization of building inspections is based upon those occupancies that are at the greatest risk of fire-related injuries and fatalities, property loss, and community impact. The division is striving to increase owner/occupant awareness of hazards so a greater number of buildings will be found in compliance with legal standards at time of inspection. While there were no fatalities and only two reportable fires occurred within all occupancy types of the priority fire and life safety inspections conducted in FY2008, property loss due to fire in non-inspected occupancies increased during the period. As the division continues its priority inspection program and continues to see a decrease in deficiencies, a decrease in the amount of structural fires and associated property loss is anticipated.

With the additional plans examiner funded and filled in FY2008, the deputy fire marshals have returned to Life Safety Inspection Bureau functions to increase priority inspections and the education process. As Alaska grows, so do the number of priority inspections.

# B: Result - Reduce property loss due to fire.

Target #1: Reduce property loss by 5% compared to previous 5-year average

**Status #1:** The dollar value of property loss due to fire increased 136% compared to the previous 5-year average. The significant increase was due to high value major fire events.



Methodology: Source: Division of Fire and Life Safety

**Dollar Value of Property Loss (calendar year)** 

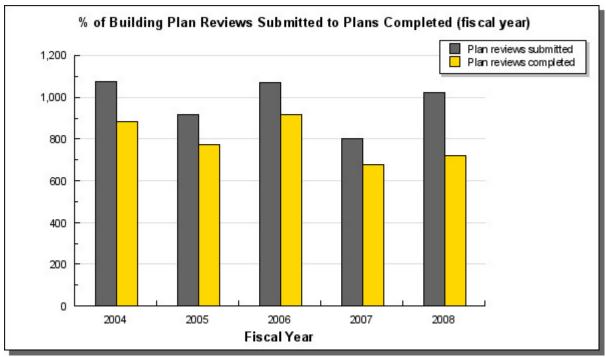
Year	Yearly Property Loss	Prev 5-Yr Avg	Percent Inc/Dec	Target
2007	\$91,121,066	\$38,648,933	+136%	\$36,716,486
2006	\$74,742,621	\$33,022,642	+126%	\$31,371,510
2005	\$27,457,556	\$33,189,397	-17%	\$31,529,928
2004	\$33,572,621	\$31,153,057	+8%	\$29,595,404
2003	\$25,546,038	\$31,585,202	-35%	\$30,005,942
2002	\$31,925,829	\$40,188,550	-21%	\$38,179,123
2001	\$46,611,167	\$45,102,485	+3%	\$42,847,361
2000	\$28,291,332			

**Analysis of results and challenges:** Alaska experiences significant fire related property loss each year. The very large increase in property losses for CY2007 can be attributed to major fire events. These include Anchorage, apartment condominiums - \$19,000,000; Talkeetna High School - \$13,299,000; the Sitka Hotel - \$12,500,000; and multiple structures in the Caribou Hills wildfire on the Kenai Peninsula - \$6,000,000.

#### B1: Strategy - Building plan review for code compliance.

Target #1: Complete yearly 95% of submitted building plan reviews

Status #1: 70% of 1,024 submitted plan reviews were completed in FY2008



Methodology: Source: Division of Fire and Life Safety

% of Building Plan Reviews Submitted to Plans Completed (fiscal year)

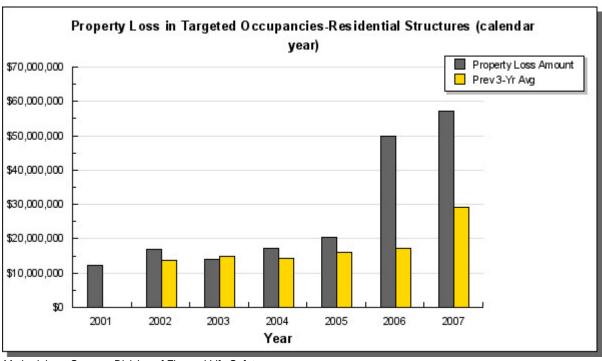
	<u> </u>		, ,
Fiscal	Plan reviews	Plan reviews	Percent completed
Year	submitted	completed	
FY 2008	1,024	718	70%
FY 2007	802	675	84%
FY 2006	1,070	916	86%
FY 2005	915	771	84%
FY 2004	1,075	882	82%

Analysis of results and challenges: When a building fire occurs, a key contributing factor to the amount of loss is how the building was constructed. The plan review bureau is tasked with making sure that proposed buildings submitted for plan review meet or exceed the standards as adopted by the State of Alaska. Although the plan review target was not reached in FY2008, the bureau hopes to reach the target now that it is fully staffed, following a sixmonth recruitment for an additional plans examiner. The net result will be to increase the number of buildings approved for construction that have had the benefit of assuring that all required fire resistive construction features have been implemented.

#### **B2: Strategy - Public education programs.**

**Target #1:** Reduce property loss in high loss occupancies-residential structures by 10% compared to previous 3-year average

**Status #1:** Significant fire events contributed to an increase of 96% in property loss in CY2007, up to \$57 million compared to the previous 3-year average of \$29 million



Methodology: Source: Division of Fire and Life Safety

Property Loss in Targeted Occupancies-Residential Structures (calendar year)

Year	<b>Property Loss Amount</b>	Prev 3-Yr Avg	Percent Inc/Dec
2007	\$57,129,607	\$29,144,196	+96%
2006	\$49,993,955	\$17,149,273	+192%
2005	\$20,353,592	\$16,013,732	+27%
2004	\$17,085,040	\$14,398,154	+19%
2003	\$14,009,186	\$14,967,004	-6%
2002	\$16,946,969	\$13,581,652	+25%
2001	\$12,238,308		

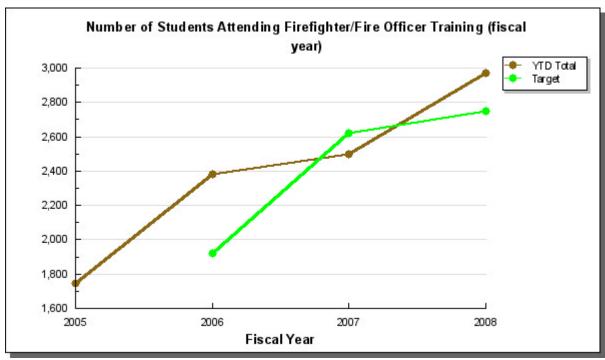
**Analysis of results and challenges:** Residential occupancies continue to be the type of structure where Alaska's greatest fire-related property loss occurs. The Division of Fire and Life Safety is working to reduce this property loss through a combination of public fire education, fire and life safety inspections of those occupancies at risk for greatest potential loss, and through the plan review of four-plex (and above) residential buildings for code compliance.

Rapidly increasing residential property values contribute to the increase in property loss. For example, a 2,000 square foot home in the Mat-Su region destroyed by fire in 2007 would have a considerably higher value than if the same house had been destroyed by fire in 2002.

#### **B3: Strategy - Fire training.**

Target #1: 10% increase in number of students attending firefighter and fire officer training

**Status #1:** 19% increase in the number of students attending firefighter and fire officer training in FY2008, from 2,500 to 2,972



Methodology: Source: Training and Education Bureau

Number of Students Attending Firefighter/Fire Officer Training (fiscal year)

Fiscal Year	YTD Total	Percent Inc/Dec
FY 2008	2,972	+19%
FY 2007	2,500	+5%
FY 2006	2,384	+37%
FY 2005	1,745	

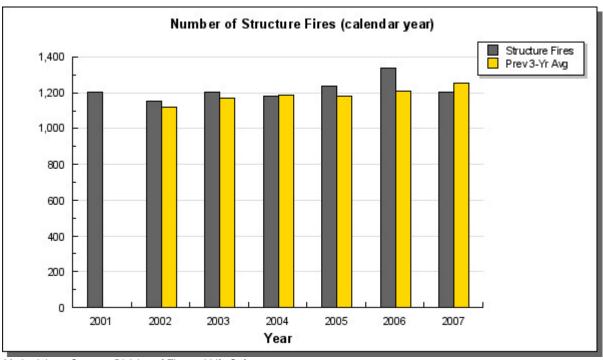
**Analysis of results and challenges:** The targeted increase of 10% was exceeded by local fire departments, whose funding directly affects the number of students available to attend training programs offered by the division. The division is working with local fire departments on ways to fund additional training during FY2009.

The division continues to work with the fire service to offer appropriate and needed training programs and is making improvements in marketing the course offerings to the fire service and other organizations needing fire training.

Proper training of firefighters and fire officers at all levels is critical to the reduction of fire-related injuries, fatalities, and property loss. This training includes all levels from basic firefighting skills to advanced fire officer strategy and tactics.

#### C: Result - Reduce number of fires.

**Target #1:** Reduce number of structure fires by 5% compared to the previous 3-year average **Status #1:** The number of structure fires decreased by 4% to 1,203 in CY2007 compared to the previous 3-year average of 1,252



Methodology: Source: Division of Fire and Life Safety

Number of Structure Fires (calendar year)

	, , , , , , , , , , , , , , , , , , ,	, ou. ,	
Year	Structure Fires	Prev 3-Yr Avg	Percent Inc/Dec
2007	1,203	1,252	-4%
2006	1,337	1,208	+11%
2005	1,236	1,181	+5%
2004	1,183	1,188	0%
2003	1,205	1,173	+3%
2002	1,154	1,122	+3%
2001	1,206		

**Analysis of results and challenges:** CY2007 saw a decrease in the number of structure fires. This is a key primary indicator of potential positive results in the future decline of fire deaths and property loss. The Division of Fire and Life Safety is working to reduce the number of structure fires in Alaska through public education programs, fire and life safety building inspections, building plan review for code compliance, and public education. The challenge will be to maintain the forward progress with existing staff as population and new construction grow.

#### C1: Strategy - Fire training.

Target #1: 10% increase in the number of fire prevention education courses delivered to firefighters

Status #1: Fire prevention education courses increased by 4% in FY2008, from 291 to 302

#### Number of Fire Prevention Education Classes Delivered to Firefighters (fiscal year)

Fiscal Year	YTD Total	Percent Inc/Dec
FY 2008	302	+4%
FY 2007	291	+16%
FY 2006	251	+484%
FY 2005	43	

Methodology: Source: Training and Education Bureau

**Analysis of results and challenges:** In FY2008, the division was short of its target of a 10% increase. The division received federal grant funds in FY2006-2007 to provide fire prevention education training to fire departments, allowing a dramatic increase in the number of course offerings. The funding allowed for travel-related expenses to ensure that members of small, rural fire departments could participate. Reduced federal funding in FY2008 limited the number of courses that could be offered.

The division has also improved marketing of these courses to fire departments. These fire prevention education courses are designed to give fire department members skills and knowledge necessary to present public education programs within their communities.

Federal funding for FY2009 has increased over FY2008, and the division anticipates improvement in this measure in the next reporting period.

Target #2: 10% increase in number of firefighters attending building safety inspection training

Status #2: 11% decrease in the number of firefighters attending building safety inspection training in FY2008, from 303 to 272

#### Number of Firefighters Attending Building Safety Inspection Training (fiscal year)

Year	YTD Total	Percent Inc/Dec
2008	272	-11%
2007	303	+12%
2006	271	+43\$
2005	189	

Methodology: Source: Training and Education Bureau

**Analysis of results and challenges:** These building safety training courses are designed to give fire department members skills and knowledge on building safety within their communities. This training allows local fire department members to educate local building owners on fire safety hazards encountered during visits to the occupancy, either during emergency responses or during courtesy inspections. The number of courses decreased in FY2008 due to reduction in federal funding and reduced demand from the fire service.

# **Key RDU Challenges**

- Staff turnover continues to be a challenge. Lead-time to fully train a deputy fire marshal (DFM) is 18 months to 2 years. Once DFMs are trained, and gain a limited amount of experience, they become highly marketable to fire departments and other agencies in Alaska and the nation. Staff turnover of commercial building plans examiners is also a challenging aspect of maintaining the required level of service.
- Oil and gas production, processing, and transportation facilities are aging, increasing the chances of failure and
  causing an increased dependency on existing fire protection detection and suppression systems that require
  closer monitoring by this division. In response, the division is expanding the duties of the Trans Alaska Fire
  Safety Specialist position to include providing fire inspection services to 17 other regulated pipelines through the
  RSA with DNR under the AS 42.06.630 authority of the State Pipeline Coordinator's Office.
- Alaska has a history of tragic fire loss. In the past two years, the state has seen an increase in civilian fatalities
  due to fire. Residential fires continue to be Alaska's largest number of structure fires. Currently, the Division of
  Fire and Life Safety has no authority to enforce single-family residential code requirements. The only method it
  has to reach residential occupants is through public education programs. With limited public educators, this can

only be accomplished by targeting high-risk groups and areas. At current staffing levels, these programs will not reach all Alaskans.

- Juvenile fire setters (JFS) are a significant cause of fire fatalities and property damage. The solution to JFS is not held by any one department or division. JFS incorporates professionals from many departments to include law enforcement, fire departments, social services, and mental health services for a statewide synergistic attack of the problem. The issue is both rural and urban and does not subscribe to social or economic status. Statistically, JFS are responsible for 20 percent of Alaska's fatalities and 30 to 40 percent of the state's property loss. There is no programmatic approach to this issue and with limited knowledge, lack of interdepartmental cooperation, and current staffing levels, JFS will continue to contribute to climbing fire fatalities and property loss.
- Small rural fire departments need increasing support for public education, equipment, and training.

# Significant Changes in Results to be Delivered in FY2010

See specific components for changes in service level.

### Major RDU Accomplishments in 2008

- Conducted 1,543 building inspections.
- Received and completed 1,024 plan reviews.
- Completed 1,361 public Fire and Life Safety presentations to Alaskan groups.
- Conducted 16 life safety code surveys of Medicare and Medicaid participant facilities throughout the state.
- Investigated 30 significant fires, including all fatality fires.
- Provided training to numerous emergency responders at various levels in urban and rural communities.
- Managed the fire statistics program for the State of Alaska.
- Provided assistance and support to the statewide training conferences of the Alaska Fire Chiefs Association and the Alaska Firefighters Association.
- Issued 982 permits for fire system technicians and 112 permits for fireworks related activities.
- The Alaska Fire Standards Council received funding for FY2009, but the Training and Education Bureau awarded 763 certifications in their stead during FY2008.
- Provided Rural Basic Firefighter Training for ten rural communities.
- The Training and Education Bureau assisted the Alaska Fire Chiefs Association and the Alaska State Firefighters Association with their annual fall conference.

#### **Contact Information**

Contact: Dan Spencer, Director, Administrative Services

**Phone:** (907) 465-5488 **Fax:** (907) 465-5500

E-mail: danial.spencer@alaska.gov

# Fire and Life Safety RDU Financial Summary by Component

All dollars shown in thousands

	FY2008 Actuals				FY2009 Management Plan			FY2010 Governor				
	General Funds	Federal Funds	Other Funds	Total Funds	General Funds	Federal Funds	Other Funds	Total Funds	General Funds	Federal Funds	Other Funds	Total Funds
Formula Expenditures None.												
Non-Formula Expenditures Fire and Life Safety	0.0	0.0	0.0	0.0	1,342.8	0.0	1,327.2	2,670.0	1,356.0	0.0	1,493.9	2,849.9
Operations Training and Education Bureau	0.0	0.0	0.0	0.0	861.2	851.2	1,225.8	2,938.2	877.3	851.2	1,229.5	2,958.0
Totals	0.0	0.0	0.0	0.0	2,204.0	851.2	2,553.0	5,608.2	2,233.3	851.2	2,723.4	5,807.9

# Fire and Life Safety Summary of RDU Budget Changes by Component From FY2009 Management Plan to FY2010 Governor

All dollars shown in thousand:

	General Funds	Federal Funds	Other Funds	Total Funds	
FY2009 Management Plan	2,204.0	851.2	2,553.0	5,608.2	
Adjustments which will continue current level of service:					
-Fire and Life Safety Operations	13.2	0.0	24.7	37.9	
-Training and Education Bureau	16.1	0.0	3.7	19.8	
Proposed budget increases:					
-Fire and Life Safety Operations	0.0	0.0	142.0	142.0	
FY2010 Governor	2,233.3	851.2	2,723.4	5,807.9	